

NORTHPORT/LEELANAU TOWNSHIP UTILITIES AUTHORITY

STANDARD SPECIFICATIONS FOR SANITARY SEWER SERVICE CONNECTIONS AND ABANDONMENT OF EXISTING PRIVATELY OWNED SEPTIC SYSTEMS

PART 1 - GENERAL

1.02 REFERENCES:

- A. ASTM - American Society Testing Materials, latest edition
- B. MDOT – Michigan Department of Transportation, “2003 Standard Specifications for Construction.”
- C. NLTUA - Northport/Leelanau Township Utilities Authority

1.02 JOB CONDITIONS:

- A. Do not bypass wastewater to ground or surface waters.
- B. Clean up promptly following pipe installation

1.03 PERMITTING

- A. The NLTUA will determine and levy a permit fee for connection to the sanitary sewer system.
 - 1. Permit fee will cover (2) site inspections of the work which includes such items as connection to the NLTUA sewer system, septic/holding tank decommissioning and abandonment, etc.
 - 2. Additional inspections due to failing work, lack of site readiness, or other reasons may result in additional inspection fees.
- B. Property Owners shall comply with Benzie/Leelanau County Health Department requirements including but not limited to abandonment of existing septic and/or holding tanks as detailed in the following sections of this specification.
- C. Property Owners are responsible for applying for a connection permit through the NLTUA. After the connection is made, the property owners are responsible for providing the following information to the NLTUA via the signed and completed Sanitary Sewer Service Connection Permit Application and Septic/Holding Tank Decommission and Abandonment Report Form:
 - 1. Pumpout record showing the date, time, and septage hauler that pumped out existing septic and holding tanks prior to abandonment.
 - 2. County signoff for electrical work, where applicable
 - 3. Witnesses and elevations of completed work as detailed in Part 3 – Execution of this specification.
- D. Property owners may retain a contractor (owner's agent) to obtain connection permit for the property owner and perform the sewer hook-up work in which case the contractor is bound by the requirements placed on the owner within this specification.

PART 2 - PRODUCTS

2.01 SERVICE PIPE:

- A. Provide minimum 4 inch plastic (PVC) ASTM3034-SDR35 or SCH40 PVC where connecting to SDR26 or SDR35 plastic pipe.
- B. Provide PVC C-900 (SDR 18 Extra Strength) where minimum isolation distances from Private Residential or Types IIB and III wells cannot be met, or as directed by the NLTUA, the NLTUA ENGINEER, or the NLTUA Agent.
- C. Joint Repair or Connecting to Existing Sewer Pipe of Different Material:
 - 1. Provide Fernco adapter coupling and stainless steel bands.
 - 2. SDR 35 to C-900 connection: gasketed adapter coupling
- D. Provide Joint Materials as Indicated for the following Pipes:
 - 1. Plastic (PVC): Gasket - ASTM D3212
 - 2. Pressure (PVC): Gasket – ASTM F477.

2.02 TRENCH BACKFILL

- A. Granular Material: Shall meet or exceed MDOT 902.08 Class II specifications and be compacted to 95% of maximum density (see Section 3.04.A).

2.03 TANK FILL MATERIALS

- A. Granular Material: Shall meet or exceed MDOT 902.08 Class II specifications and be compacted to 95% of maximum density (see Section 3.04.A).
- B. Flowable Fill: Shall have a minimum compressive strength of 50 psi at 3 days and 150 psi at 28 days. Flowable fill shall conform to the MDOT special provision for flowable fill.
- C. Peastone: MDOT 34R (MDOT 902.07), 3/8" maximum stone size.

2.04 SPECIFICATIONS FOR MATERIALS

- A. Contractors may request specifications for materials from NLTUA as needed.

PART 3 - EXECUTION

3.01 PREPARATION:

- A. Alignment and Grade:
 - 1. Grade: 2% (target), 1% minimum slope per Leelanau County Environmental Health Regulations.
 - 2. Alignment: Maintain 5 feet (min.) of separation between sanitary and potable water service lines
 - 3. Separation: Maintain 50 feet (min.) of isolation between sanitary service lines and potable water wells.

3.02 EXCAVATION:

- A. General:
 - 1. Dispose of surplus and unsuitable excavated material.
 - 2. Remove, salvage and stockpile topsoil
 - 3. Unsuitable material encountered in subgrade: Remove and dispose of material.

- B. Trenches:
 - 1. Depth: Provide a uniform and continuous bearing and support for proposed utility on solid and undisturbed or compact granular material.
 - 2. Minimum Width: Allow space for jointing and bedding.
 - 3. Maximum Width: 30 inches (unless additional width is needed for insulation materials, see 3.03.D).

3.03 INSTALLATION:

- A. Laying pipe:
 - 1. Depth: 5 feet minimum is recommended wherever possible to minimize the possibility of freezing pipelines.
 - 2. Joints shall be smooth and clean.
 - 3. Place pipe length and bedding as a unit in a frost free, dry trench.
 - 4. Install PVC pipe in accordance with ASTM D2321 and these specifications.
- B. Bedding:
 - 1. Method: ASTM D2321.
 - 2. Granular material shall be MDOT 902.08 Class II sand.
 - 3. In areas of high groundwater or impervious soils, bed pipe on 4" min MDOT 902.07 6A or 34R stone.
 - 4. Provide continuous bearing by supporting entire length of pipe barrel evenly.
- C. Jointing:
 - 1. Provide and utilize solvents, adhesives and lubricants as recommended by pipe and fitting manufacturers.
 - 2. Gasket position: Confirm that the gasket is in place and that the joint is properly made.
- D. Pipe insulation: Where minimum depth cannot, or has not, been achieved, it is recommended to place 2-inch thick Styrofoam insulation board (blue board) 4 feet wide over pipe at top of bedding in order to minimize the possibility of freezing pipelines.

3.04 COMPACTION, TESTING, AND INSPECTION:

- A. Pipe bedding area: Compact granular material to ninety-five percent (95%) of maximum density according to the Modified Proctor Method or to ninety-five percent (95%) of maximum density using the Michigan Cone Test.
- B. Trench Backfill Area:
 - 1. Under permanent pavement, shoulder areas and areas within a one on one slope from the shoulder edge:
 - a. Compact suitable excavated material or granular material in 9.0 inch layers to ninety five percent (95%) of maximum density according to the Modified Proctor Method or to ninety-five percent (95%) of maximum density using the Michigan Cone Test.
 - 2. Under nonpermanent pavement: Same as permanent pavement.
 - 3. Under unimproved right-of-way areas: Compact suitable excavated material to eighty-five percent (85%) of maximum density.
 - 4. Under landscaped and unimproved areas: Compact suitable excavated material to eighty percent (80%) of maximum density.
- C. Moisture - Density relationships:
 - 1. Cohesive (clays) soils: ASTM D 1557 (Modified Proctor).

2. Granular (sands) soils: Michigan Cone Test.
- D. Field Density: Either of following:
1. ASTM D-2167 (Rubber Balloon).
 2. ASTM D-2922 (Nuclear).
- E. Observation: By NLTUA or NLTUA's Agent.
1. The Property Owners and/or Contractors shall install via open cut methods and leave the trench open until the site is inspected and approved. Pipe fittings, connection to laterals, connections to buildings, bedding, and full pipe contact with bedding will be examined.
- F. Connection to Existing Sewer Service Piping
1. The existing sewer service pipe will be cut and attached to the new pipe using solvents, adhesives and lubricants as recommended by pipe and fitting Manufacturers if materials are alike.
 2. Fernco adapter couplings and stainless steel bands are to be used if the existing and new piping are of dissimilar materials.
- G. Witnesses and Measurements:
1. The Property Owners and/or Contractors performing the work shall:
 - a) Fully witness all turns and bends to at least 2 permanent features for each turn or bend
 - b) Record grades, elevations, and locations (horizontal)
 - c) Drive ½" diameter by 18" long iron rods vertically to 4 inches below grade to mark all bends and changes in horizontal alignment.

3.05 ABANDONMENT OF EXISTING PRIVATE SEPTIC / WASTE HOLDING FACILITIES:

- A. General: The property owner shall decommission a septic/waste holding system when the NLTUA sanitary sewer system becomes available, the NLTUA has notified the property owners connection to the system is permitted, and the building sewer has been connected thereto.
- B. Procedures for Decommissioning:
1. The tank(s), cesspool or seepage pit shall be pumped by a licensed sewage disposal service to remove all sanitary wastewater and solids. A pumping record shall be recorded and submitted to the Northport/Leelanau Township Utilities Authority.
 2. The property owner or owner's agent shall notify the NLTUA a minimum of 2 working days in advance of the scheduled tank abandonment.
 - a. A representative of the NLTUA shall be present during abandonment operations so that witnessing and reporting of abandonment activities to the NLTUA and the Benzie/Leelanau County Health Department may occur.
 - b. If abandonment activities take place without observation by the NLTUA representative, the property owner shall be responsible for uncovering any structures at their cost for verification of proper abandonment procedures.
 3. The existing septic tank, holding tank, pump station, or any other vault type wastewater structure not used with the NLTUA sewer system shall either be:
 - a. Removed completely and backfilled with MDOT 902.08 Class II sand compacted to 95% maximum density.
 - b. Crushed and backfilled with MDOT Class II sand compacted to 95% maximum density

- c. The structure shall be completely filled with either MDOT Class II sand or bank run gravel (compacted to 95% maximum density) or with cementitious flowable fill. No voids shall be left in the vault structure to be abandoned.
 - d. It is recommended that the tops of the tanks be crushed when sand or gravel fill is used in order to avoid the possibility of voids.
4. Any sanitary sewer lines that are not to remain in service shall also be either completely filled with cementitious flowable fill or cut and capped at each end.

3.06 SOIL EROSION AND SEDIMENTATION CONTROL:

- A. General: Abide with all applicable rules and regulations as established by the State of Michigan and the local regulating agency in conjunction with Soil Erosion and Sedimentation Control Act (Act 347 P.A. of 1972) as amended.
- B. Permits: The individual residential/commercial owner and/or Owner's Contractor shall be responsible for obtaining any and all applicable permits.
- C. Sediment Removal:
 - 1. Take such steps as are necessary to assure the retention and removal of any sediment which enters a drainage system along the construction route before said system discharges into a stream, pond or lake.
 - 2. If eroded material is allowed to enter a storm sewer system, all catch basins, manholes and pipe shall be cleaned following construction
- D. Soil Erosion and Sedimentation Control Measures:
 - 1. Provide and maintain the following minimum temporary soil erosion and sedimentation control measures:
 - a. Excavated or borrow material stock-pile.
 - (1) Place bales of hay or straw and/or siltation fencing around stockpile in a manner to prevent soil erosion from entering the drainage system or leaving the site.
 - b. Trench backfill in place.
 - (1) Place bales of hay, straw or silt fence staked in place across trenches, ditches and around inlets to prevent soil erosion from leaving the site or entering the drainage system until:
 - (a) Seed and mulch have been placed in non-paved areas.
 - (b) Aggregate has been placed in bituminous and gravel areas.
 - c. Dewatering discharge.
 - (1) Place bales of hay, straw and siltation fencing and/or outlet filter bag at point of discharge, adequately anchored.
 - d. Maintain controls during non-working hours and during working hours if weather so requires.
 - e. Remove and properly dispose of silt or solids retention at control structures following construction.

END OF SECTION

SANITARY SEWER SERVICE CONNECTION PERMIT APPLICATION

NORTHPORT/LEELANAU TOWNSHIP
UTILITIES AUTHORITY

116 West Nagonaba PHONE: (231)386-5182
PO Box 158 FAX: (231)386-5184
Northport, MI 49670

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Application Fee has Been Paid

Date

Initials

This form shall be completed and returned to the Northport/Leelanau Township Utilities Authority

PARCEL # _____

ADDRESS _____

Name of Property Owner _____

Permit Requirements:

1. Provide witness distances and elevations of work required to complete the sanitary sewer service connection.(provide in the sketch area below)
2. Provide completed Septic/Holding Tank Decommission and Abandonment Report Form.
3. County approval of electrical work completed (were applicable).
4. Complete the installation of the service connection to the Northport/Leelanau Township Utilities Authority (NLTUA) sanitary sewer system in compliance with the NLTUA Standard Specifications for Sanitary Sewer Service Connections and Abandonment of Existing Privately Owned Septic Systems.

I / We agree to comply with the above mentioned conditions of the NLTUA Sanitary Sewer Service Connection Permit.

Signature of Property Owner (or Owner's Agent)

Date

Plan (as shown on reverse side) is approved for construction by:

Signature of NLTUA Representative

Date

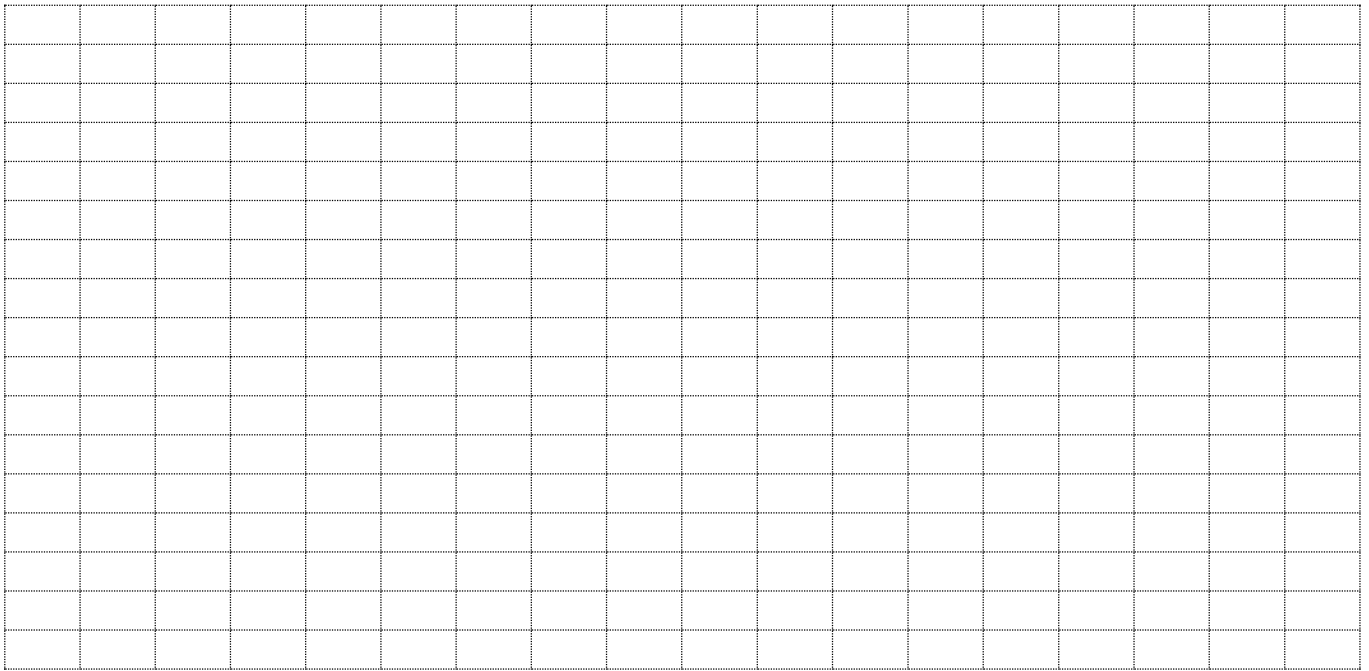
Final As-Built Construction (as shown on reverse side) has been accepted by:

Signature of NLTUA Representative

Date

PLAN FOR SERVICE CONNECTION LOCATION SKETCH

(Provide a minimum of three referencing measurements from existing structures (completed by property owner
(or owner's agent))



FINAL AS-BUILT SERVICE CONNECTION LOCATION SKETCH

(Provide a minimum of three referencing measurements from existing structures (completed by property owner
(or owner's agent))

